

REMARKS

This Amendment is submitted in response to the non-final Office Action mailed on June 11, 2009. No fee is due in connection with this Amendment. The Director is authorized to charge any additional fees which may be required, or to credit any overpayment to Deposit Account No. 02-1818. If such a withdrawal is made, please indicate the Attorney Docket No. 112857-478 on the account statement.

Claims 11, 14-16 and 18-21 are pending in this application. Claims 1-10, 12-13, 17 and 22-24 were previously canceled without prejudice or disclaimer. In the Office Action, Claims 11, 14-16 and 18-21 were rejected under 35 U.S.C. §103. In response, Claims 11 and 21 have been amended, and Claims 25-26 have been newly added. The amendments do not add new matter. The new claims do not add new matter. At least in view of the amendments and/or for the reasons set forth below, Applicants respectfully submit that the rejections should be withdrawn.

In the Office Action, Claims 11, 14-15 and 18-21 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,143,083 to Yonemitsu et al. ("*Yonemitsu*") in view of U.S. Patent No. 5,259,881 to Edwards et al. ("*Edwards*") and U.S. Patent No. 4,492,180 to Martin ("*Martin*"). In response, Applicants have amended independent Claim 11 and dependent Claim 21. In view of the amendments and/or for at least the reasons set forth below, Applicants respectfully submit that, even if combinable, the cited references fail to disclose or suggest each and every element of independent Claim 11 and Claims 14-15 and 18-21 that depend therefrom.

Currently amended independent Claim 11 recites, in part, an apparatus for manufacturing an organic electroluminescence display, the apparatus comprising: a first alignment mechanism for aligning a mask, having openings corresponding to the predetermined pattern, to the substrate and for detachably attaching the mask and the substrate; a first formation unit including a plurality of vacuum processing chambers for sequential selective deposition of the plurality of organic material layers on the substrate at a first color position, the substrate being attached to the mask; a second alignment mechanism for changing the alignment between the substrate and the mask, and for detachably attaching the substrate and the mask again; and a second formation unit including a plurality of vacuum processing chambers for sequential selective deposition of the plurality of organic material layers on the substrate at a second color position, the substrate being attached to the mask, wherein each of the vacuum processing chambers correspond to each

of the organic material layers, and wherein the second alignment mechanism is provided to connect the first formation unit and the second formation unit in series thereby providing flow-through processing.

Similarly, Claim 21 recites, in part, an apparatus for manufacturing an organic electroluminescence display as claimed in claim 11, further comprising: a third formation unit including a plurality of vacuum processing chambers for sequential selective deposition of the organic material layers on the substrate at a third color position, the substrate being attached to the mask. These amendments do not add new matter. The amendments are supported in the Specification at, for example, page 1, paragraphs 10-11; paragraph 14, lines 1-14; page 2, paragraphs 27 and 36-37; page 5, paragraph 77, lines 4-14; paragraph 78, lines 2-10; page 6, paragraph 86, lines 2-5; paragraph 88, lines 5-10; paragraph 89, lines 2-5; paragraph 91, lines 5-10; page 7, paragraph 114, lines 3-7; paragraph 115; paragraph 116, lines 1-8; page 8, paragraph 117; paragraph 118, lines 1-6; paragraphs 124, 127; pages 8-9, paragraph 136; page 9, paragraphs 137-38 and 140-41.

Sequential selective deposition includes aligning a mask which has openings corresponding to the pixels or organic layers of a display and depositing the organic material layers of each organic layer on a substrate. See, Specification, page 1, paragraph 4-5. By performing sequential selective deposition of the organic material layers in multiple processing chambers with the substrate attached to the mask, no alignment work is necessary during the formation of a single organic layer. See, Specification, page 2, paragraph 18. This greatly reduces the waiting time for heating the vapor deposition sources, reduces equipment costs and decreases the amount of organic materials consumed in forming the organic layers. See, Specification, page 1, paragraph 13; pages 8-9, paragraph 136; page 9, paragraphs 137-38. In contrast, the cited references fail to disclose or suggest every element of the presently pending claims.

For example, the cited references fail to disclose or suggest a plurality of vacuum processing chambers for sequential selective deposition of the plurality of organic material layers as recited, in part, by independent Claim 11. The Patent Office asserts that *Yonemitsu* discloses “a first film formation unit 701 including a plurality of vacuum chambers 70 for sequential deposition of a plurality of layers around a vacuum transfer chamber 55” and “a second film formation unit 701’ including a plurality of vacuum chambers 70’ for sequential deposition of a

plurality of layers around a second vacuum transfer chamber.” See, Office Action, page 2, lines 11-16. However, the portions of *Yonemitsu* relied on by the Patent Office merely disclose a plurality of reaction chambers 70 for “the deposition of various films. . . by various kinds of [chemical vapor deposition].” See, *Yonemitsu*, column 11, lines 23-25 and 38-41. Nowhere does *Yonemitsu* disclose the use of a mask for selective deposition, nor does *Yonemitsu* suggest that its reaction chambers are capable of performing selective deposition of organic material layers. Instead, *Yonemitsu* is entirely directed to a substrate processing apparatus for processing a semiconductor wafer and fails to even mention the use of a mask anywhere in its disclosure. See, *Yonemitsu*, column 1, lines 10-12; column 2, lines 10-12. In fact, the Patent Office admits that *Yonemitsu* fails to disclose an alignment mechanism for aligning a mask with a substrate. See, Office Action, page 2, lines 18-20. As such, *Yonemitsu* fails to disclose or suggest that its plurality of reaction chambers may be used for sequential selective deposition of a plurality of organic material layers as required, in part, by the present claims.

Edwards and *Martin* also fail to a plurality of vacuum processing chambers for sequential selective deposition of a plurality of organic material layers. The Patent Office relies on *Edwards* merely for the disclosure of two processing apparatuses connected by an alignment chamber. See, Office Action, page 3, lines 3-4. Like *Yonemitsu*, *Edwards* is entirely directed to a semiconductor wafer processing apparatus and fails to disclose the use of a mask for selective deposition of a plurality of organic material layers. See, *Edwards*, column 1, lines 5-9; column 3, lines 7-13. The Patent Office relies on *Martin* merely for the disclosure of an alignment means for aligning a mask to a substrate and detachably attaching the mask and the substrate. See, Office Action, page 3, lines 5-8. Although *Martin* teaches an apparatus for aligning a deposition mask with a substrate, nowhere does *Martin* disclose or suggest forming organic material layers in a plurality of vacuum processing chambers, nor does the Patent Office cite support for such claimed element. See, *Martin*, Abstract; column 1, lines 9-19; column 2, lines 46-50. Therefore, the cited references fail to disclose or even suggest a plurality of vacuum processing chambers for sequential selective deposition of the plurality of organic material layers in accordance with the present claims.

Moreover, one of ordinary skill in the art would have no reason to combine the alignment mechanisms of *Edwards* and *Martin* with the apparatus of *Yonemitsu* to arrive at the present claims because *Yonemitsu* never discloses the use of a mask or aligning a mask and a substrate to

perform selective deposition. *Yonemitsu* is entirely directed to a semiconductor wafer processing apparatus and fails to disclose the use of a deposition mask for selective deposition of a plurality of organic material layers. See, *Yonemitsu*, column 1, lines 10-12; column 2, lines 10-12. The Patent Office admits that *Yonemitsu* fails to disclose an alignment mechanism but nevertheless asserts that one of ordinary skill in the art would have added the alignment mechanism of *Martin* to the apparatus of *Yonemitsu* "to enable the apparatus of *Yonemitsu* [] to adjust the position of the mask and deposit a layer in the desired location as taught by *Martin*." See, Office Action, page 2, lines 18-20; page 4, lines 1-4. However, in its entire disclosure, *Yonemitsu* never even mentions the use of a deposition mask or the alignment of a mask with a substrate to perform selective deposition. As such, Applicants respectfully submit that one of ordinary skill in the art would have no reason to combine the alignment mechanisms of *Edwards* or *Martin* with the semiconductor wafer processing apparatus of *Yonemitsu* to arrive at the present claims.

Accordingly, Applicants respectfully request that the rejection of Claims 11, 14-15 and 18-21 under 35 U.S.C. §103(a) to *Yonemitsu*, *Edwards* and *Martin* be withdrawn.

In the Office Action, Claim 16 is rejected under 35 U.S.C. §103(a) as being unpatentable over *Yonemitsu* in view of *Edwards* and *Martin* and further in view of U.S. Patent Publication No. 2001/0006827 to Yamazaki et al. ("*Yamazaki*"). Applicants respectfully submit that, even if combinable, the cited references fail to disclose or suggest each and every element of Claim 16.

As discussed previously, *Yonemitsu*, *Edwards* and *Martin* fail to disclose or suggest a plurality of vacuum processing chambers for sequential selective deposition of the plurality of organic material layers as required, in part, by independent Claim 11 from which Claim 16 depends. The Patent Office relies on *Yamazaki* merely for the disclosure of a magnetic attachment fixture that forms a sandwich with the substrate. See, Office Action, page 4, lines 15-22; page 5, lines 1-4. Nowhere does *Yamazaki* disclose or suggest a plurality of vacuum processing chambers for sequential selective deposition of the plurality of organic material layers, nor does the Patent Office cite support for such claimed element. As such, even if combinable, *Yamazaki* fails to remedy the deficiencies of *Yonemitsu*, *Edwards* and *Martin* with respect to Claim 16.

Accordingly, Applicants respectfully request that the rejection of Claim 16 under 35 U.S.C. §103(a) to *Yonemitsu*, *Edwards*, *Martin* and *Yamazaki* be withdrawn.

Applicants further note that Claims 25-26 have been newly added. The new Claims are fully supported in the Specification at, for example, page 5, paragraphs 80-84; pages 5-6, paragraph 85; pages 6-7, paragraph 98; page 7, paragraphs 115-116; Figs. 8 and 17-18. No new matter has been added thereby. Applicants respectfully submit that the subject matter as defined in the newly added claim is patentable over the cited art for at least substantially the same reasons as discussed above.

For the foregoing reasons, Applicants respectfully submit that the present application is in condition for allowance and earnestly solicit reconsideration of same.

Respectfully submitted,

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